



**Classification:** Criminalist III - Trace Evidence

**Title Code:** V00515

**Pay Range:** 27

### **POSITION SUMMARY:**

This is a very responsible professional and technical position. Work includes performing complex and technical work in the scientific analysis of trace evidence. The employee also serves as a lead worker by training other criminalists and laboratory technicians. Work includes preparing reports, developing procedures for the laboratory, testifying in court, instructing others about the collection and analysis of evidence and maintaining and repairing the laboratory equipment. Work is performed with considerable independence within the framework of established procedures and policies.

### **DESCRIPTION OF DUTIES PERFORMED:**

(Any one position may not include all of the duties listed nor do the listed examples include all tasks which may be found in positions of this class.)

Regularly processes, compares and examines trace evidence (e.g. hair and fiber, gunshot residue, fire debris, explosives, paint, glass, soil, lamp filament, fracture match and foreign substances) submitted from crime scenes or parties involved in criminal activity.

Analyzes samples using microscopy, chemical testing and chemical instrumentation including gas chromatography/mass spectrometry, infrared spectroscopy and scanning electron microscopy/energy dispersive x-ray spectroscopy.

Interprets tests results obtained from the proper microscopic, chemical and instrumental methods.

Makes decisions as to the appropriate test methodology for a particular examination based on the quantity and quality of the submitted sample.

Assesses submitted evidence to determine which items are most likely to associate or disassociate the victim or suspect with a crime scene.

Regularly works with a variety of potentially hazardous materials (e.g., HIV or hepatitis contaminated evidence).

Participates in crime scene investigations as needed (e.g., collects, preserves, and examines evidence); trains other criminalists in the procedures utilized in conducting said investigations.

Routinely testifies as an expert witness in a court of law while maintaining composure and objectivity under intense cross-examination.

Serves as a lead worker by training the criminalists and laboratory assistants in trace evidence analysis.

Provides recommendations and assists in the development and application of the techniques for upgrading laboratory capability.

Prepares evidence and exhibits; maintains report files; issues periodic and special reports as assigned.

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Conducts training of law enforcement personnel about trace evidence analysis.

Educates trial attorneys, judges and juries about complex scientific analysis and serves as a technical advisor during trial proceedings.

Interacts with the media regarding forensic science.

Generates and receives requests to and from other law enforcement agencies, prosecutors, attorneys, etc., regarding criminal evidence and crime laboratory procedures.

Reviews and updates standard operating procedures, training, quality control, and safety manuals, etc., within the chosen/related discipline.

Participates in the proficiency testing program for the trace evidence section.

Successfully passes practical competency and/or written test(s) prior to assuming casework.

Stays updated on technical trends through attendance of workshops/seminars and reading forensic science literature.

Performs instrument maintenance and repairs.

Operates standard office equipment (i.e., personal computer, telephone, fax machine, copier, adding machine, etc.).

Participates in and successfully passes practical competency and/or written test(s) prior to assuming casework.

Performs job-related travel, as needed.

Performs basic photography as needed.

Performs other related duties as assigned.

**REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:**

Ability to read English effectively.

Ability to communicate in English clearly and concisely, both orally and in writing.

Thorough knowledge of the procedures and methods used in the scientific analysis of trace evidence.

Thorough knowledge of the compilation and preparation of evidence for presentation in court and the role of an expert witness in legal proceedings.

Thorough knowledge and practice of safety rules and procedures associated with laboratory equipment and chemicals.

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Ability to work with potentially hazardous materials.

Ability to generate and respond to requests for information from a variety of individuals regarding forensic science.

Ability to perform work in accordance with prescribed procedures, make accurate observations of test results, and prepare accurate records and reports.

Ability to serve as a lead worker by training criminalists and laboratory assistants.

Ability to gather, assemble, correlate, and analyze facts to be incorporated into a report of laboratory work and tests.

Ability to maintain composure while under cross-examination in regard to personal and scientific qualifications and defend laboratory findings in court.

Ability to distinguish colors necessary to perform laboratory tests.

Ability to perform microscopic work for extended periods.

Ability to recognize and identify minute details.

Ability to work with highly sensitive information in a confidential and professional manner.

Ability to establish and maintain effective working relations with others.

Ability to properly use laboratory equipment, computer and photography equipment, standard office equipment, and chemicals.

Ability to perform job-related travel (e.g., appearing in court, observing crime scene investigations, and attending training meetings, seminars, etc.).

Ability to communicate effectively.

Ability to participate in and successfully pass practical and/or written competency test(s) prior to assuming casework.

Ability to review and revise procedure manuals.

Ability to educate individuals regarding forensic science. This may include MSHP academy recruit classes, civic, school and attorney groups.

Ability to develop methods and/or techniques to upgrade laboratory capability.

Ability to interact with the media.

Ability to work with bloody material and material that may be of a sexual nature relating to criminal activity (e.g., written material, photographs, and/or verbal language, etc.).

Ability to work hours as assigned.

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**MINIMUM EXPERIENCE AND EDUCATION REQUIRED:**

(The following represents the minimum qualifications used to accept applicants, provided that equivalent substitution may be permitted in case of deficiencies in either experience or education.)

Possess a baccalaureate degree in chemistry or one of the natural sciences. Coursework must include at least 25 semester hours of core chemistry coursework including two semesters of general chemistry, two semesters of organic chemistry, one semester of organic chemistry laboratory, and one semester of quantitative analysis, analytical chemistry, instrumental analysis or equivalent. Organic chemistry laboratory that is integrated into a 4 or 5 hour organic chemistry course will satisfy the laboratory course requirement. Academic record and applicable job experience will be a factor for consideration for this position.

AND

Possess at least two years of experience as a Criminalist II - Trace Evidence or comparable experience.

**NECESSARY SPECIAL REQUIREMENTS:**

Must provide a DNA sample to be used only for forensic identification as required at the time of appointment.

Must be able to pass a polygraph examination after conditional offer of employment.

If applicable to the assigned forensic discipline, possess or obtain a Missouri Department of Health Type 1 Permit (Alcohol and Drug Testing).

If applicable, possess or obtain and maintain a Certified Instructors Certificate (Specialist) from the Missouri Department of Public Safety.

**FLSA STATUS:** Non-Exempt

**WORK SCHEDULE:** An employee in this position works an eight-hour shift as directed; however, working hours are subject to change at the discretion of the commanding authority.